REMARKS

Upon entry of this Response, claims 2-6, 8-12, 14-16, and 18-20 remain pending in the present application. Claims 2, 8, 14, and 18 have been amended herein. Applicant respectfully requests reconsideration of the pending claims in view of the following remarks.

In item 13 of the Office Action, claims 1-20 stand rejected under 35 U.S.C. §102(b) as being anticipated by Zeng, Gamut Mapping in Multiple Color Spaces, 25-28 January 2000, (hereafter "Zeng"). Anticipation under §102 "requires the disclosure in a single prior art reference of each element of the claim under construction. W.L. Gore & Associates, Inc. v. Garlock, Inc., 220 USPQ 303, 313 (Fed. Cir. 1983). Applicant notes that claims 1, 7, 13, and 17 have been previously canceled herein, thereby rendering this grounds of rejection moot with respect to such claims. Applicant asserts that Zeng fails to show or suggest each element of the remaining claims. Accordingly, for the reasons that follow, Applicant requests that the rejection of claims 2-6, 8-12, 14-16, and 18-20 be withdrawn.

Claim 2 has been amended herein to recite as follows:

> 2. A method for color processing, comprising the steps of:
> defining a composite color space in a memory of a computer system, the composite color space having a number of color space portions and a number of transition portions between adjacent ones of the color space portions;
> converting an input color space representation of a color into a composite color space representation of the color in the computer system; and
> gamut mapping the color in the composite color space after the color is converted into the composite color space representation to obtain a representation of the color in the composite color space that is reproducible by an output device.

Applicant reasserts that Zeng fails to show or suggest all of the elements of claim 2 as amended. Specifically Zeng does not show or suggest gamut mapping a color in a composite color space after the color is converted into the composite color space representation to obtain the representation of the color in the composite color space that is reproducible by an output device. Rather, Zeng discusses gamut mapping in multiple color spaces. Specifically, in the last paragraph of Section 1, Zeng states:

> "In this paper, the author focuses on how to solve perceive-hue shift in blue region. This gamut mapping process is aimed to achieve perceptual blue mapping nicely and does not change the gamut

mapping for other regions. Instead of shifting hue to map monitor blue into perceptual printer blue or to invent a new color space for gamut mapping, ***the author used two existing color spaces for gamut mapping, one for the gamut mapping in blue region, and the other for the gamut mapping in non-blue region***. The details are described in the following sections." (Emphasis Added)

In addition, in Section 2, Zeng states:

"***Three popular gamut mapping algorithms*** were used to map out-of-gamut colors into the gamut of the destination device in this research. The first one is to adjust the input lightness into output lightness, followed by moving out of gamut color into the gamut of the output device in constant lightness line while preserving the hue. The second one is slightly different from the first one. After adjusting the lightness in the output lightness, the out-of-gamut color is moved into the gamut of the output device along the straight line connected by the out-of-gamut color in the center of the achromatic line while preserving the hue. The third mapping algorithm is to adjust the input lightness into the output lightness, followed by minimum distance mapping."

In addition, the title of FIG. 4 cited by the Office Action states:

"FIG. 4 a ***multiple color space gamut mapping approach*** to optimize perceptual result or for preference color mapping."

In FIG. 4, gamut mapping is described as occurring in multiple different color spaces as shown. By contrast, gamut mapping as set forth in claim 2 is performed in a single composite color space after the color is converted into the composite color space representation. In this regard, teaching from the instance specification is instructive. Specifically, in the paragraph beginning on line 26 of page 4, the specification states:

"The non-transitional color space conversions 109a generally involve converting the representation of a color in the XYZ color space 106 to a predetermined color space that is directly employed as a portion of the composite color space 113 as will be discussed. The transitional color space conversions 109b generally involve converting the representation of the color in the XYZ color space 106 into a hybrid color space. The hybrid color space is a combination of representations of the same color in two different color spaces that are adjacent to each other in the composite color space. The resulting hybrid color space is included in the composite color space 113 as a transition portion as will be discussed. ***Once a color is transitioned to the composite color space 113, a gamut mapping function 116 is performed, resulting in a representation of the color in the composite color space 117 that can be produced by an ultimate output device.*** Thereafter, the representation of the color is converted into a device-dependent output color space 119 that may be applied,

> for example, to an output device as is generally known by those with ordinary skill in the art. For example, the input color space 103 may be the RGB color space and the output color space 119 may be CMYK color space as is generally known by those with ordinary skill in the art." (Emphasis Added).

Thus, it is seen that the gamut mapping function is performed once the transition of colors in various color spaces into the composite color space has been completed. By contrast, Zeng teaches performing gamut mapping within the individual color spaces before converting colors to the final color space of the output device. In this regard, the gamut mapping of Zeng is performed in multiple color spaces, resulting in a slowing of the process since gamut mapping is generally an involved process. Thus, Applicant respectfully asserts that each of the elements of claim 2 are not taught by Zeng.

Accordingly, Applicant requests that the rejection of claim 2 under §102(b) as anticipated by Zeng be withdrawn. In addition, to the extent that claims 8, 14, and 18 recite elements similar in scope with those of claim 2, Applicant requests that the rejection of claims 8, 14, and 18 be withdrawn for the same reasons as described above with respect to claim 2. In addition, Applicant notes that claims 3-6, 9-12, 15-16, and 19-20 depend from claims 2, 8, 14, and 18. Accordingly, Applicant requests that the rejection of these claims be withdrawn as depending from claims 2, 8, 14, and 18, respectively.

In addition, claims 1-4, 7-10, and 13-20 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent 5,583,666 issued to Ellson (hereafter "Ellson Anticipation under §102 "requires the disclosure in a single prior art reference of each element of the claim under construction. W.L. Gore & Associates, Inc. v. Garlock, Inc., 220 USPQ 303, 313 (Fed. Cir. 1983). Applicant notes that claims 1, 7, 13, and 17 have previously been canceled, thereby rendering this grounds of rejection moot with respect to such claims. For the reasons that follow, Applicant asserts that Ellson fails to show or suggest each of the elements of claims 2-4, 8-10, 14-16, and 18-20. Accordingly, Applicant requests that the rejection of these claims be withdrawn.

With respect to claim 2, the Office Action states:

> "In regards to claim 2, Ellson discloses in FIG. 9 and 10 and col. 8, lines 18-50 the method further comprising the step of gamut mapping the color in the composite color space to obtain a representation of the

> color in the composite color space that is reproduceable by an output device." (Office Action, page 8)

Upon further Review, Applicant once again asserts that Ellson fails to show or suggest each of the elements of claim 2 above. Specifically, at column 8, lines 30-37, Ellson states:

> "The present invention provides a method for simultaneously specifying the desired color mapping for the highly saturated out-of-gamut colors, while maintaining colorimetric reproduction for other colors such as skin tones. FIGS. 9 and 10 show slices in the CIELAB color space in which the colors in the RGB video gamut are mapped to colors in the output color gamut using a three-dimensional look-up table generated with the preferred embodiment of this invention."

In this respect, the CIELAB color space is a single color space and not a composite color space having a number of color space portions and a number of transition portions between adjacent ones of the color space portions as set forth in claim 2 as amended. Rather, the CIELAB color space is a single space as is known by those skilled in the art. Accordingly, Ellson fails to show or suggest the concept of gamut mapping a color in a composite color space that comprises a number of color space portions and a number of transition portions between adjacent ones of the color space portions.

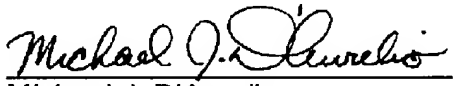
In addition, Applicant asserts that Ellson fails to show or suggest gamut mapping the color in the composite color space after the color is converted into the composite color space representation to obtain a representation of the color in the composite color space that is reproducible by an output device. Specifically, there is no composite color space representation into which the color is converted.

Accordingly, Applicant requests that the rejection of claim 2 under §102(b) as being anticipated by Ellson be withdrawn. In addition, to the extent that claims 8, 14, and 18 recite elements similar in scope with those of claim 2, Applicant requests that the rejection of claims 8, 14, and 18 be withdrawn for the same reasons as described above with respect to claim 2. In addition, Applicant notes that claims 3-6, 9-12, 15-16, and 19-20 depend from claims 2, 8, 14, and 18. Accordingly, Applicant requests that the rejection of these claims be withdrawn as depending from claims 2, 8, 14, and 18, respectively.

CONCLUSION

Applicant respectfully requests that all outstanding objections and rejections be withdrawn and that this application and all presently pending claims be allowed to issue. If the Examiner has any questions or comments regarding Applicant's response, the Examiner is encouraged to telephone Applicant's undersigned counsel.

Respectfully submitted,



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